

Opportunity Title: CDC Waterborne Environmental Microbiology and Engineering

Laboratory Fellowship

Opportunity Reference Code: CDC-DFWED-2020-0148

Organization Centers for Disease Control and Prevention (CDC)

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How to Apply A complete application consists of:

- An application
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- One educational or professional recommendation. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

All documents must be in English or include an official English translation.

If you have questions, send an email to ORISE.CDC.NCEZID@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 9/30/2020 3:00:00 PM Eastern Time Zone

Description *Applications will be reviewed on a rolling-basis.

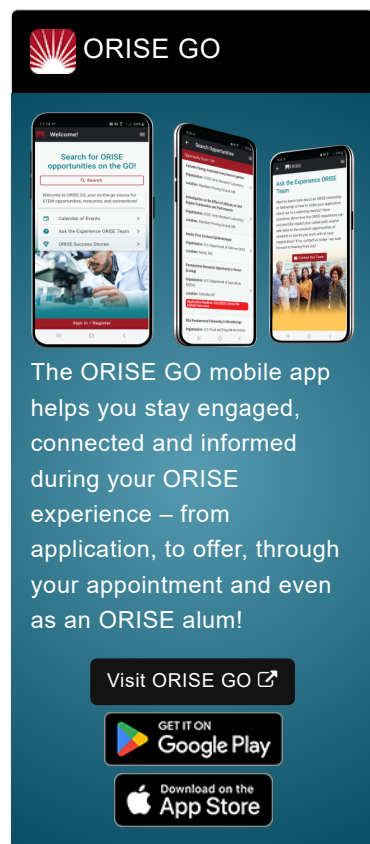
Two research opportunities are currently available with the Waterborne Disease Prevention Branch (WDPB), within the Division of Foodborne, Waterborne, and Environmental Diseases (DFWED) in the National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia.

The Environmental Microbiology and Engineering Laboratory in WDPB is initiating a 36-month project examining the use of amplicon-based and metagenomic next generation sequencing technologies to detect and type pathogens directly from environmental samples. Under the guidance of a mentor, the selected participant will be involved in analyzing water and wastewater samples for water quality indicator bacteria and antibiotic resistant bacteria using culture-based and culture-independent approaches, as well as participating in sample collection in the field. Method validation will also be part of this project. This project is a collaboration with the Culture Independent and Metagenomic Subtyping Group (CIMS) in the Enteric Diseases Laboratory Branch, and the participant will collaborate closely with scientists and bioinformaticians in that group.

WDPB's primary mission is to partner with state and local public health agencies to provide technical and emergency assistance, build laboratory expertise and capacity, and conduct applied research to support response and preparedness activities and programs. WDPB mission-related work includes domestic and global outbreak investigations, during which clinical, animal, and environmental samples are often collected and processed in our laboratories for the suspected waterborne pathogen as part of root cause analyses. However, the processes of isolating, identifying, and characterizing waterborne pathogens can be very difficult. In efforts to significantly improve outbreak response and investigations, WDPB laboratories have been awarded Advanced Molecular Detection (AMD) funding to support novel research aimed at utilizing and developing new genome-based technologies for the detection and typing of enteric pathogens.


Anticipated Appointment Start Date: September 2020


This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an




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interagency agreement between DOE and CDC. The initial appointment can be up to one year, but may be renewed upon recommendation of CDC contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at CDC in the Atlanta, Georgia, area. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits.

Qualifications The qualified candidate should have received a master's or doctoral degree in one of the relevant fields, or be currently pursuing one of the degrees and will reach completion by August 2020. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Experience with standard microbiological analyses of water, bacterial culture, aseptic technique, and qPCR
- Experience with environmental sampling of additional matrices (soil, sediment, air, etc.), quantitative PCR, and next generation sequencing and resulting data analyses

- Eligibility Requirements**
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 8/31/2020 11:59:00 PM.
 - **Discipline(s):**
 - **Engineering** ([1](#) )
 - **Environmental and Marine Sciences** ([3](#) )
 - **Life Health and Medical Sciences** ([7](#) )